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EXAMINER

DINH, KHANH Q

ART UNIT

PAPER NUMBER

2151

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/811,128

Applicant(s)

TENG ET AL.

Examiner

Khanh Dinh

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8, 13-33, 35 and 36 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-8, 13-33, 35 and 36 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

1. This is in response to the Amendment and Remarks filed on 10/24/2005. Claims 1-8 and 13-33 and new claims 35 and 36 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-8, 13-24 and 35-36 are rejected under 35 U.S.C. 102(e) as being anticipated by Giroir et al., (hereafter Giroir), U.S. pat. No.6,760,771.

As to claim 1, Giroir discloses a communication switch comprising:

at least one input (input/IP datagram sent from client 501 fig.5) for receiving messages, each message including,

an address specifier and a port specifier (using IP datagram including source and destination port, see fig.3, col.5 line 57 to col.6 line 41).

a traffic analyzer (DT traffic analyzer 511 fig.5) to compare the port specifier of a first message against the port specifiers of previously received messages and an

Art Unit: 2151

output for reporting a result of the comparison to a remote location (server 503 fig.5) (see col.7 line 24 to col.8 line 43 and col.10 lines 13-65).

As to claims 2 and 3, Giroir discloses a usage tracking system to throttle traffic through the communication switch and means to throttle traffic based on a number of messages having a common address specifier and port specifier (see col.10 line 45 to col.11 line 57 and col.12 lines 30-64).

As to claims 4 and 5, Giroir discloses the usage tracking system includes means to throttle traffic according to a predetermined maximum aggregate bandwidth (using capacity of servers) for the communication switch, the predetermined maximum aggregate bandwidth received from the remote location and reporting fraud over the output to a service provider from a remote location (implementing service providers, see col.1 lines 12-27, col.9 lines 30-51, col.10 line 45 to col.11 line 57 and col.12 lines 30-64).

As to claim 6, Giroir discloses the traffic analyzer to comparing the address specifier and port specifier combination of the first message against the address specifier and port specifier combinations of the previously received messages (see col.9 lines 30-51 and col.12 lines 30-64).

Art Unit: 2151

As to claim 7, Giroir discloses that each message further includes, traffic type specifier; and the traffic analyzer is further to compare the traffic type specifier of the first message against the traffic type specifiers of the previously received messages (see fig.5, col.10 line 45 to col.11 line 57 and col.12 lines 30-64).

As to claim 8, Giroir discloses each message further includes a traffic type specifier and the traffic analyzer is further for comparing the address specifier, port specifier, and traffic type specifier of the first message against address specifier, port specifier, and traffic type specifier combinations of the previously received messages and to report information to the remote location regarding a combination of request types originating from the same address specifier and port specifier (see fig.6, col.8 line 44 to col.9 line 51 and col.12 lines 30-64).

As to claim 13, Giroir discloses a method comprising:

receiving a first message which includes an address:port identifier (using IP datagram including source and destination port, see fig.3, col.5 line 57 to col.6 line 41).

comparing the address:port identifier against previously received messages' address:port identifiers (using DT traffic analyzer 511 fig.5) and determining whether excessive traffic is originating from a source identified by a common address:port identifier of the first message and at least some of previously received messages (see fig.5, col.7 line 24 to col.8 line 43 and col.10 lines 13-65).

Art Unit: 2151

As to claims 14 and 15, Giroir discloses throttling message traffic in response to determining that excessive traffic is originating from the source and throttling message traffic to and/or from the source (see fig.5, col.10 line 45 to col.11 line 57 and col.12 lines 30-64).

As to claim 16, Giroir discloses comparing the type specifier against type specifiers of previously received messages having the same address:port as the first message and determining whether the source is issuing messages of different types (see col.9 lines 30-51 and col.12 lines 30-64).

As to claims 17 and 18, Giroir discloses sending a fraud alert in response to determining that the source is issuing messages of different types such as indicate fraud and recording the message for use in future comparisons against future messages (see col.10 line 45 to col.11 line 57 and col.12 lines 30-64).

As to claim 19, Giroir discloses receiving an indication of a maximum bandwidth for a customer premises from a remote location and throttling message traffic to/from the customer premises in response to the indication of the maximum bandwidth (using capacity of servers, see col.1 lines 14-27, col.9 lines 30-51, col.10 line 45 to col.11 line 57 and col.12 lines 30-64).

As to claim 20, Giroir discloses a customer premises gateway comprising:

at least one first Input/Output I/O (router 515 fig.5) each to connect to a communication device and a second I/O for connecting to the Internet Service Provider ISP premises head-end server (503 fig.5) (using IP datagram including source and destination port, see fig.3, col.1 lines 13-27 and col.5 line 57 to col.6 line 41); and

a traffic analyzer (511 fig.5) coupled to the at least one first I/O and the second I/O, including a port identifier comparator, a throttling mechanism, and a fraud reporter to report excessive traffic from a common address identifier and port identifier combination of the communication device (see fig.5, col.7 line 24 to col.8 line 43 and col.10 lines 13-65).

As to claim 21, Giroir discloses a message type analyzer (see fig.5, col.7 line 24 to col.8 line 43 and col.10 lines 13-65).

As to claim 22, Giroir discloses a machine accessible medium including instructions which, when executed by the machine, cause the machine to:

compare a first address:port combination of a message against a second address:port combination of a previously received message see fig.3, col.5 line 57 to col.6 line 41) and responsive to the address:port comparison, determine whether excessive traffic is going to/from the first address:port combination (see fig.5, col.7 line 24 to col.8 line 43 and col.10 lines 13-65).

Art Unit: 2151

As to claim 23, Giroir discloses throttling traffic to/from the first address:port combination based on the determination of excessive traffic (see col.12 lines 20-58 and col.14 lines 13-65).

As to claim 24, Giroir discloses reporting fraud to a service provider at a remote location (see fig.5, col.7 line 24 to col.8 line 43 and col.10 lines 13-65).

As to claim 35, Giroir discloses wherein the communication switch is to be coupled to a router at a customer premises, wherein a plurality of systems are to be coupled to the router at the customer premises (see fig.7, col.12 lines 20-58 and col.14 lines 13-65).

As to claim 36, Giroir discloses the predetermined maximum aggregate bandwidth is based on a bandwidth associated with a customer premises including the communication switch (see fig.7, col.12 lines 20-58 and col.14 lines 13-65).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 25-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giroir in view of Sigaud (hereafter Sigaud), U.S. pat. No.6,657,956.

As to claims 25 and 26, Giroir's teachings still applied as in item 3 above. Giroir does not specifically disclose masquerading port information and reporting the masquerading. However, Sigaud discloses masquerading port information in IP environment and report the masquerading (preventing a hacker from connecting at a given moment by masquerading as someone else at the terminal connected to the IP network, see fig.2, col.4 line 60 to col.5 line 65). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate Sigaud's teachings into the computer system of Giroir to protect data information because it would have protected a stations' access to at least one server and provided selection access to the application requested from the server in a communications network.

As to claim 27, Giroir discloses a method for a communication switch to detect that a device connected to the communication switch is a router, comprising:

receiving in a communication switch a message from a device (client 501 fig.5), the message including address and sub-address identifiers (using IP datagram including source and destination port, see fig.3, col.5 line 57 to col.6 line 41).

comparing the address and sub-address identifiers against one or more previously received messages (see fig.5, col.7 line 24 to col.8 line 43 and col.10 lines 13-65).

Giroir does not specifically disclose determining whether the device is performing masquerading. However, Sigaud discloses determining whether the device is performing masquerading (preventing a hacker from connecting at a given moment by masquerading as someone else at the terminal connected to the IP network, see fig.2, col.4 line 60 to col.5 line 65). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate Sigaud's teachings into the computer system of Giroir to protect data information because it would have protected a stations' access to at least one server and provided selection access to the application requested from the server in a communications network.

As to claims 28 and 29, Giroir discloses observing a first message type indicator in the message and a different message type indicator in at least one of the previously received messages and recording the address and sub-address identifiers of the message, receiving a second message and comparing the second message's address

and sub-address identifiers against the recorded address and sub-address identifiers (see col.12 lines 20-58 and col.14 lines 13-65).

As to claim 30, Giroir discloses the address identifier comprises an Internet Protocol address and the sub-address identifier comprises a port number (see col.12 lines 20-58 and col.14 lines 13-65).

As to claim 31, Giroir discloses sending a fraud alert to a server associated with a service provider (see col.1 lines 12-27, col.12 lines 20-58 and col.14 lines 13-65). Giroir does not specifically disclose determining whether the device to perform masquerading. However, Sigaud discloses determining whether the device to perform masquerading (preventing a hacker from connecting at a given moment by masquerading as someone else at the terminal connected to the IP network, see fig.2, col.4 line 60 to col.5 line 65). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate Sigaud's teachings into the computer system of Giroir to protect data information because it would have protected a stations' access to at least one server and provided selection access to the application requested from the server in a communications network.

As to claims 32 and 33, Giroir discloses throttling message transmission, comparing a message type identifier of the message against one or more previously received messages and detecting that the message type identifier of the message is different

Art Unit: 2151

than a message type identifier of a previously received message having a same address identifier and a same sub-address identifier as the message communicating an alert based on detecting to a remote service provider (using service providers, see col.1 lines 12-27, col.10 line 45 to col.11 line 57 and col.12 lines 30-64). Giroir does not specifically disclose determining whether the device to perform masquerading. However, Sigaud discloses determining whether the device to perform masquerading (preventing a hacker from connecting at a given moment by masquerading as someone else at the terminal connected to the IP network, see fig.2, col.4 line 60 to col.5 line 65). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate Sigaud's teachings into the computer system of Giroir to protect data information because it would have protected a stations' access to at least one server and provided selection access to the application requested from the server in a communications network.

Response to Arguments

6. Applicant's arguments filed on 10/24/2005 have been fully considered but they are not persuasive.

- Applicant asserts that the cited reference does not disclose a communication switch including an output to report a result of a comparison switch of a port specifier of a first message against the port specifiers of previously received messages.

Examiner respectfully disagrees. Giroir discloses a method of delivering a datagram across multiple inter-network servers using a dispatcher system (507 fig.5). Specifically, Giroir discloses a traffic analyzer (DT traffic analyzer 511 fig.5) to compare the port specifier of a first message against the port specifiers of previously received messages (analyzing the IP datagrams and determining the device type and then selecting the optimal server for forwarding the IP datagrams, see col.7 line 24 to col.8 line 43 and col.10 lines 13-65) as rejected above.

- Applicant asserts that the cited reference does not disclose determining whether excessive traffic is originating from a source identified by a common address:port identifier of the first message and at least some of previously received messages.

Examiner respectfully point out that Giroir discloses determining whether excessive traffic is originating from a source identified by a common address:port identifier of the first message and at least some of previously received messages (using traffic analyzer to analyze the IP datagrams and to determine the device type or traffic priority or discard eligibility based on characteristics of the traffic to a selected server, see fig.5, col.7 line 24 to col.8 line 43). Furthermore, Giroir discloses using a table containing a list of records 612, each record including a Cx_Source_IP_Address field 613, a Cx_Source_Port field 614, a Cx_Dest_IP_Address field 615, a Cx_Dest_Port field 616, and a Cx_Device_Type field 617 for processing data traffic (see fig.6, col.10 lines 12-50).

- Applicant asserts that the cited reference does not disclose a fraud reporter to report excessive traffic from a common address identifier and port identifier combination of the communication device.

Examiner respectfully point out that Giroir discloses a fraud reporter to report excessive traffic from a common address identifier and port identifier combination of the communication device (using traffic analyzer to analyze the IP datagrams and to determine the device type or traffic priority or discard eligibility based on characteristics of the traffic to a selected server, see fig.5, col.7 line 24 to col.8 line 43 and col.10 lines 13-65).

- Applicant asserts that the cited reference does not disclose responsive to the address:port comparison, determine whether excessive traffic is going to/from the first address:port combination (see fig.5, col.7 line 24 to col.8 line 43 and col.10 lines 13-65).

Examiner respectfully point out that Giroir discloses responsive to the address:port comparison, determine whether excessive traffic is going to/from the first address:port combination (using data dispatcher to test the datagrams, see fig.5, col.7 line 24 to col.8 line 43 and col.10 lines 13-65).

Art Unit: 2151

- Applicant asserts that the cited references do not disclose performing masquerading based on a comparison of address and sub-address identifiers against one or more previously received messages.

Examiner respectfully point out that the combination of Giroir and Sigaud discloses the Applicant's claimed invention. For example, Giroir discloses comparing the address and sub-address identifiers against one or more previously received messages (using data dispatcher to test the datagrams, see figs.5, 6, col.7 line 24 to col.8 line 43 and col.10 lines 13-65). Giroir does not specifically disclose determining whether the device is performing masquerading. However, Sigaud discloses determining whether the device is performing masquerading (preventing a hacker from connecting at a given moment by masquerading as someone else at the terminal connected to the IP network, see fig.2, col.4 line 60 to col.5 line 65). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to incorporate Sigaud's teachings into the computer system of Giroir to protect data information because it would have protected a stations' access to at least one server and provided selection access to the application requested from the server in a communications network.

- Applicant further asserts that there is no suggestion or motivation to combine the references.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by

combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, it would have protected a stations' access to at least one server and provided selection access to the application requested from the server in a communications network.

Therefore, the examiner asserts that cited prior art teaches or suggests the subject matter broadly recited in independent claims 1, 13, 20, 22 and 27.

Claims 2-8, 14-19, 21, 23-26, 28-33, 35 and 36 are also rejected at least by virtue of their dependency on independent claims and by other reasons set forth in the previous office action [mailed on 7/27/2005 and this Office Action]. Accordingly, claims 1-8, 13-33, 35 and 36 are respectfully rejected.

Conclusion

7. Claims 1-8, 13-33, 35 and 36 are rejected.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 2151

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Dinh whose telephone number is (571) 272-3936. The examiner can normally be reached on Monday through Friday from 8:00 A.m. to 5:00 P.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung, can be reached on (571) 272-3939. The fax phone number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Khanh Dinh
Primary Examiner
Art Unit 2151
1/5/2006